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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|----------------------|------------------|
| 09/943,880 | 08/30/2001 | Michael B. Ball | 2769.6US (95-1118.5) | 2391 |
| 24247 | 7590 | 04/23/2003 | | |

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[REDACTED] EXAMINER

CHAMBLISS, ALONZO

[REDACTED] ART UNIT

PAPER NUMBER

2827

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------------------|-------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/943,880 | BALL, MICHAEL B. |
| | Examiner Alonzo Chambliss | Art Unit 2827 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 January 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Disposition of Claims

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 13 January 2003 is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 4) Interview Summary (PTO-413) Paper No(s) _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

1. Amendment B filed on 1/13/03 has been fully considered and made of record in Paper No. 5.

Response to Arguments

2. Applicant's arguments with respect to claim 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. In claim 1, the phrase "said first semiconductor substrate element and the second semiconductor substrate element for locating a portion of the integrated circuitry on the said first semiconductor substrate element adjacent a portion of the integrated circuitry on the second semiconductor substrate element" is vague and indefinite, since it is not clear from the claim how the first and second substrate element are **for locating** a portion of the integrated circuitry on the first and second substrate element. Furthermore, it is not clear from the claim how a portion of the circuitry of the first semiconductor element is **adjacent a portion** of the circuitry of the second

semiconductor element. . Furthermore, it is established by claim 1 that the first and second semiconductor substrate elements are stacked but does not have to be aligned. However, all of the figures show that the dies have to be aligned before severing.

6. Claim 1 recites the limitation " said at least one second semiconductor substrate element " in lines 8, 17, and 19. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 5 recites the limitation " said vertical alignment " in line 3. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 3 recites the limitation " said at least one second semiconductor substrate element " in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 5 recites the limitation " said at least one second semiconductor substrate element " in lines 2 and 4. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 5, the phrase " said vertical alignment is effected by aligning said flat of said first semiconductor substrate element and said flat of the at least one second semiconductor substrate element " is vague and indefinite since it is not clear from the claim 1 where the alignment process takes place. Furthermore, it is established by claim 1 that the first and second semiconductor substrate elements are stacked but does not have to be aligned. However, all of the figures show that the dies have to be aligned before severing.

11. Claim 8 recites the limitation " conductors " in line 2. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: aligning vertically said first semiconductor substrate element and the at least one second semiconductor substrate element in claim 1.

The prior art made of record and not relied upon is cited primarily to show the process of the instant invention.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (703) 306-9143.
The fax phone number for this Group is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956.



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AC/April 12, 2003